| Course Code | 18CS752 | IA Marks | 40 |  |
| :---: | :---: | :---: | :---: | :---: |
| Number of Lecture Hours/Week | 3:0:0 | Exam Marks | 60 |  |
| Total Number of Lecture Hours | 40 | Exam Hours | 03 |  |
| CREDITS - 03 |  |  |  |  |
| Course Learning Objectives:This course (18CS752) will enable students to |  |  |  |  |
| - Learn Syntax and Semantics and create Functions in Python. <br> - Handle Strings and Files in Python. <br> - Understand Lists, Dictionaries and Regular expressions in Python. <br> - Implement Object Oriented Programming concepts in Python <br> - Build Web Services and introduction to Network and Database Programmingin Python. |  |  |  |  |
| Module - 1 |  |  |  | Teaching Hours |
| Why should you learn to write programs, Variables, expressions and statements, Conditional execution, Functions <br> Textbook 1: Chapters 1 - 4 <br> RBT: L1, L2, L3 |  |  |  | 08 |
| Module - 2 |  |  |  |  |
| Iteration, Strings, Files <br> Textbook 1: Chapters 5-7 RBT: L1, L2, L3 |  |  |  | 08 |
| Module - 3 |  |  |  |  |
| Lists, Dictionaries, Tuples, Regular Expressions Textbook 1: Chapters 8-11 RBT: L1, L2, L3 |  |  |  | 08 |
| Module - 4 |  |  |  |  |
| Classes and objects, Classes and functions, Classes and methods Textbook 2: Chapters 15-17 RBT: L1, L2, L3 |  |  |  | 08 |
| Module - 5 |  |  |  |  |
| Networked programs, Using Web Services, Using databases and SQL <br> Textbook 1: Chapters 12-13, 15 <br> RBT: L1, L2, L3 |  |  |  | 08 |
| Course Outcomes:After studying this course, students will be able to |  |  |  |  |
| - Examine Python syntax and semantics and be fluent in the use of Python flow control and functions. <br> - Demonstrate proficiency in handling Strings and File Systems. <br> - Create, run and manipulate Python Programs using core data structures like Lists, Dictionaries and use Regular Expressions. <br> - Interpret the concepts of Object-Oriented Programming as used in Python. <br> - Implement exemplary applications related to Network Programming, Web Services and Databases in Python. |  |  |  |  |
| Question paper pattern: |  |  |  |  |
| - The question paper will have ten questions. <br> - Each full Question consisting of 20 marks |  |  |  |  |
| - There will be 2 full questions (with a maximum of four sub questions) from each module. <br> - Each full question will have sub questions covering all the topics under a module. <br> - The students will have to answer 5 full questions, selecting one full question from each module. |  |  |  |  |

